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Energy Notes

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ENERGY EFFICIENCY THROUGH DEMAND-SIDE MANAGEMENT

A WIN WIN STRATEGY FOR MONTANA'S ELECTRIC COOPERATIVES AND THEIR CUSTOMERS

Many western Montanans enjoy the reliability of energy from electric cooperatives which they themselves own as members. The member consumers trust their utility to consistently provide the electricity they need for heating, cooling, lighting, and other purposes during the harshest of winters and the hottest of summers.

Electric cooperatives want to help their customers save energy. Cooperatives are in the business of selling electricity, but both electrical production and saving energy through energy efficiency are ways of providing new sources of energy. Energy efficiency programs and energy production both contribute to reliable energy services.

Electric cooperatives realize that when consumers purchase electricity they are buying the comfort and convenience that electricity provides. In effect, a utility today is selling an energy service. To remain competitive, a utility must provide not only competitive rates, but also the energy benefits that provide a comfortable home, hot water, clean clothes, lights at night, a television to watch, or a stereo to listen to. Montana cooperatives are committed to providing affordable electricity for the services Montanan's want for comfort and convenience.

Electric utilities have a special name for the process of influencing the demand for electricity Demand Side Management, or DSM. Influencing electrical usage patterns is not a new technique. For instance, some utilities have a long history of offering electric rates that vary at different times of day, with the lowest rates occurring during the periods of lowest demand. This gives customers an incentive to shift some of their electrical use away from the utility's period of peak demand. Western Montana's electric cooperatives are now developing and implementing a variety of methods to manage the demand for electricity. Reducing demand through energy efficiency programs is one of these methods.

WHY ARE UTILITIES PURSUING DSM?

First and foremost, many DSM procedures and technologies are less expensive to implement than providing the same amount of power through additional purchases or new construction. Also,

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DSM procedures and technologies are less expensive to implement than providing the same amount of power through additional purchases or new construction

DSM programs involve less risk than building power plants because energy efficiency can be delivered in small increments. A utility can build a DSM program gradually, but it cannot build and use a power plant in similar increments. Also, if a DSM program isn't working as planned, the utility can keep some parts of the program going while it modifies other parts.

In the past, the increased demand for energy in western Montana was met by buying additional power from outside sources. This strategy worked successfully for decades. However, the high incremental costs of new power from new generation sources can push electric rates higher. In addition, strict regulations now in effect to help protect the environment can add to the cost of building new power plants.

Electric utilities, including those in Montana, are adopting new methods of producing power that reduce the need for power from costly new plants. It is often more cost effective for a utility to save electricity than to purchase additional power. Saving electricity can help Montana's cooperatives deal with the increasing energy demands in high growth areas in the state, such as Kalispell and Missoula.

DSM programs also help the economy of western Montana both directly and indirectly. The direct impacts include creation of jobs for contractors and crews hired to perform DSM projects such as weatherization, installing energy efficient light bulbs, or performing energy audits. Indirect economic benefits ensue for the community that supports the contracts and crews including the banker who finances the operation, the accountant who keeps the firm's books, and the lumberyard that provides materials used in the weatherization activities.

Implementing energy efficiency programs can bring tremendous savings not only locally but nationally. Energy efficiency efforts in the U.S. over the last 20 years have led to the use of 29 percent less energy than was needed 20 years ago. National energy efficiency has increased by almost a third without any decrease in national productivity, and almost all of that is due to actions by individuals, business, government, and utilities to make daily use of energy more efficient. These energy savings are very significant for our economy and our environment. If the U.S. had not become more energy efficient over the last 20 years, it would have needed the equivalent of 82 more hydroelectric dams or coal generation plants in the 500 megawatt range (one of Montana's Colstrip plants equals 500 megawatts) to produce the amount of energy that was saved.

EXAMPLES OF CURRENT DSM PROGRAMS

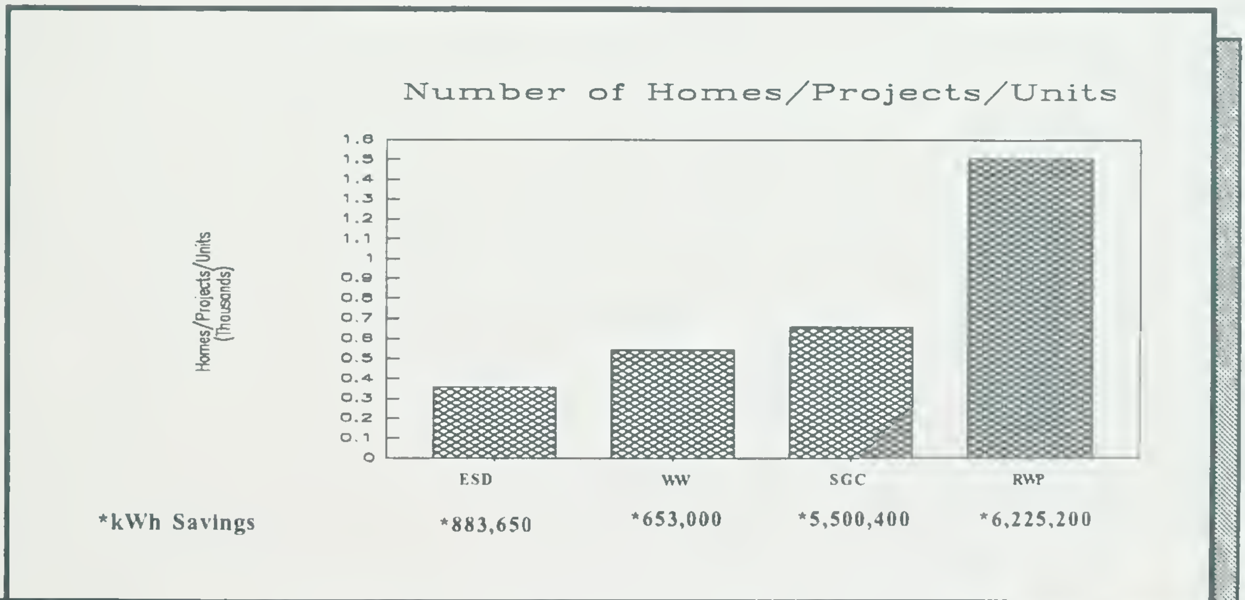
Many western Montana electric cooperatives have already implemented DSM programs that benefit their residential and commercial customers. These programs are constantly being monitored and modified to better serve both the cooperatives and consumers, so interested parties should contact their local cooperative for the most current information. The major programs currently operating are listed below.

Energy Smart Design

Sponsored by the Bonneville Power Administration since 1988, Energy Smart Design provides technical and design assistance for remodels and new commercial construction, and has provided rebates for installing energy efficient measures in commercial buildings. Approximately 356 commercial projects in western Montana have participated in the program, resulting in approximately 883,650 kWh savings.

Waterwise

This DSM program provides a comprehensive analysis of farming/ranching irrigation systems, including soil sampling, terrain, and irrigation system layout. Consumers participating in Waterwise share the cost of installing energy efficient irrigation equipment, including motors, nozzles, and other fittings. Approximately 546 units have been modified in Montana under Waterwise, saving approximately 653,000 kWh.



ESD - Energy Smart Design
WW - Waterwise
RWP - Residential Weatherization Program
SGC - Super Good Cents

Super Good Cents

Begun in 1984, Super Good Cents promotes the efficient, cost effective use of electricity in new homes. The Super Good Cents program has provided incentives to homeowners to help offset the additional cost of installing energy efficiency measures (such as advanced techniques, higher levels of insulation, and air sealing). In western Montana, approximately 661 homes have been built under this program, achieving an estimated kWh savings of 5,500,400. The Super Good Cents program and the education provided through it also has been partially responsible for changing the way many houses all over Montana are built to increase energy efficiency. In 1994, the program was expanded to include low-interest mortgages for Super Good Cents homes for low-income Montanans.

Residential Weatherization Program

Currently known as Weatherwise, this program has been operating since 1980. The objective of Weatherwise is to install cost effective, energy efficient weatherization measures in existing site built residences and mobile homes. Under this program, homeowners share in the cost of installing approved weatherization measures. Low-income consumers contribute a lower percentage of the cost. In western Montana, approximately 1,500 homes have been weatherized, saving approximately 6,225,200 kWh since the program began.

Manufactured Housing Acquisition Program (MAP)

The MAP program is a regional effort designed to help increase the energy efficiency of electrically heated manufactured homes. An incentive is paid to manufacturers for each home that meets the MAP energy efficiency standards. Started in 1992, MAP has been very successful, with 8,075 energy efficient manufactured homes being built in the region since that time. In western Montana, approximately 102 MAP homes have been sited.

FOR MORE INFORMATION CONTACT YOUR LOCAL ELECTRIC COOPERATIVE

CONCLUSION

Persons interested in saving energy should keep informed about their utility's energy saving programs and look for actions they can take to reduce energy use. Become an informed consumer of energy services and look for the most efficient way to heat and cool your home, provide more effective lighting, and perform all of the other services that meet your home and lifestyle needs. Energy technologies are constantly changing. It pays to stay informed of these changes to make the right choices for saving energy.

DSM programs increase a utility's energy supply by giving customers sound, money-saving reasons to use energy more efficiently. These programs make sense because it is often more cost effective for utilities to help customers save energy than to purchase additional power. Since DSM helps Montanans meet their electrical usage needs in a more cost effective way, Montana's electrical cooperatives will be better able to continue to supply cost effective energy resources in the future.

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